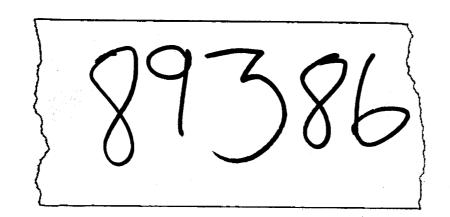
Work Orde		86		*893						Page 1			
Revision ID:	D350-636-011			Accept	*N900	<u>040</u>	100)* s	etup	Start Stop		S1*	Harrie.
Start Date:		Start Qty: 1.00	*1*	Cust Item ID:					Stop	*N:	S2*		
Required Date: Reference:		Req'd Qty: 1.00	*1*		Customer:		_	R	tun	Start	*N i	D 4 *	
Approvals:	Process Plan QC:	:_MLJ	Date: 12 08 2	Tooling: SPC (Y/N):	D				Stop	*NR1* *NR2*			
Sequence ID/ Work Center II		Operation Description		Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reje Qty		Reject Number	Insp. Stamp	- ,-
Draw Nbr	Revis	sion Nbr											
D2750	F												
*100 *100*		DOCUMENT CONTROL		0.00	(DA-)	wolos		H)4	DI N	NU,	12-10-	3
Document Control		Photocopy blu	e file and type labels per	PPP D350-636-011 CH	G 006 JB				79			·	

٠,



NO	CR:	Yes /	No	WORK ORDER
Wo	rk O	rder:		DISPOSITI

	DQA:	Date:		•
ORK ORDER NON-CONFORMANCE / LIPDATE			•	

									QA Closed:	Date	:
Work Orde	r:				DISPOSITION			AGAINST DE	PARTMENT	/PROCESS	
Part N					Rework Scrap	4 I	Skid-tube Machining	Crosstube Small Fab	Fab Prod. Eng. Coor. Quality		
NCR N	lo				Use-as-is Work Order Update	Theri	moforming Large Fab	Finishing Composite	Rec/Stoi	Supplier	Other
Root				Descri	ption of work order update	Initial	Ac	tion	Sign &		
Cause	Date	Step	Qty		or Non-conformance	Chief Eng	Desc	ription	Date	Verification	QC Inspector
Doc/Data								-			
quip/Tooling									* •		
Operator											
Material			,								-
Setup											
Other									ļ		
Process					:						
Supplier					•						
Training										<u> </u>	
Unapproved				<u></u>							
					F	AULT CATE	GORY	·			
Landir	ng Gear				General				_	_	
	Bending				Bend	Grain		<u></u>	Ovalized	_	Pressure/Forced
	Centre No	ot Conce	ntric to	o/s	BOM/Route	Hardw	are		Over/Under	tolerance	Temperature/Cure
	Cracks				Broken/Damaged	Inspec	tion Incomplete		Part Incorre	ct _	Weld
	Crushed/	Crimped			Burrs	Instruc	tions Incomplete/	Unclear	Part Lost/M	issing	Wrong Stock Pulled
	Cuffs Contamination						enance		Part Moved		
	Heat Treat Countersink						eled		Positioned \	Wrong	
	Inspectio	n Strip in	Tube		Cut Too Short	Misrea	ıd		Power Loss,	'Surge	Other
Ripples in Bend Drill Holes						Offset					
Torque Waves in Extrusion Drawing						Out of Calibration					
Turning Sequence Finish						Out of Sequence					
Wave/Twist in Tube Folio Outside Dimensions									-		

1ugust-24-12 1:	47:05 PM										
tem ID: Revision ID:	D350-636-01	1		Accept	*N900	04010	ገበ*	Setup	Start	*N:	S1*
tem Name:	Skidtube LH								Stop	*N!	S2*
Start Date:	8/21/12	Start Qty: 1.0	oo *1	*	Cust Item 1	ID:					
Required Date:	9/14/12	Req'd Qty: 1.0	00 *1	*	Customer:						
Reference:					·			_	G		
Approvals:	Process Pla	n:	Date:	Tooling:	D	ate:		Run	Start	*NI	₹1*
	QC:		Date:	SPC (Y/N):	D	ate:			Stop	*NI	₹2*
Sequence ID/ Work Center II)	Operation Description		Set Up/ Run Hours	Tool ID	Tool # Pla Coo		ot Rej Qty		Reject Number	Insp. Stamp
110				0.00							
110 Skidtubes		Skidtubes Memo		0.00							
Skidtubes		1- Pick	D2600-3 Bent								
		AFT er	nd per dwg D2750 I pilot holes for blade fitti	remove bending marks. Scribe by the street of the street o							
		4- Loca fitting	ate DT8330 off of blade f	itting bolt holes and drill pilot h	oles for blade						
		5- Dril	l only two fwd step holes	using DT9616. Ensure proper p	oositioning.					j	
				02750 sheet 4 (D2750-1 details) at side only DT8863B for secon			R	3	12/1	>9/0Y	•
			cko DT8863B on second s COND SIDE***	side of tube and drill pilot holes	for detail B.				ı	1	•
1		locatio	on holes to 0.500" (total of	0.375" (4 holes per side)and bl f 4 holes per side) as per dwg D etail C to 0.500" (8 holes per si	2750 .Open up	<i>/</i> .					
		9-Drill 0.297"		s as per Dwg D2750 using DT8	108 open to					4	
		10-Op	en up holes of Detail A to	0.297" (total of 2 holes per sid	e) /						

NCR: Y	·												
											QA Closed:	Date	:
Work Orde	er:	,				DISPOSITION			AG	SAINST DE	PARTMENT	PROCESS	
Part N	- No					Rework Skid-tube Crosstube Machining Small Fab Thermoforming Finishing Composite				all Fab nishing	4	Water Jet d. Eng. Coor. e/Packaging Supplier	Engineering Quality Other
Root					Descri	ption of work order update		nitial	Action		Sign &		
Cause		Date	Step	Qty		or Non-conformance	Ch	ief Eng	Description		Date	Verification	QC Inspector
Doc/Data Equip/Tooling Operator Material Setup Other Process Supplier Training Unapproved													
Опаррточео			<u> </u>	1		F	AUL	T CATE	GORY				.
Landi	ng G	ear				General		<u> </u>					
		Bending Centre No Cracks Crushed/G Cuffs Heat Trea Inspection Ripples in	Crimped t n Strip in Bend	Tube		Bend BOM/Route Broken/Damaged Burrs Contamination Countersink Cut Too Short Drill Holes		Instruct Mainte Mislabe Misread Offset	ion Incomplete tions Incomplete/Unclear enance eled d		Ovalized Over/Under Part Incorred Part Lost/Mi Part Moved Positioned V Power Loss/	ct sssing	Pressure/Forced Temperature/Cure Weld Wrong Stock Pulled Other
		Torque W	aves in E	xtrusio	n	Drawing `	1	Out of (Calibration				

Out of Sequence

Outside Dimensions

DQA:

Date:

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

Turning Sequence

Wave/Twist in Tube

Finish

Work Ord		386		*89:	386*						Page 3
Item ID: Revision ID:	D350-636-0	11		Accept	*N900	040	100)*	Setup Sta	17	IS1*
Item Name:	Skidtube LH								St	ob *	IS2 *
Start Date:	8/21/12	Start Qty: 1.00	*1*		Cust Item I	D:		•			
Required Date:	9/14/12	Req'd Qty: 1.00	*1*		Customer:			-			
Reference:											
Approvals:	Process Pla	an:	Date:	Tooling:	Da	ite:	_	I	Run Sta	17	IR1*
			Date:		Da	ite:			St	^{op} *N	IR2*
Sequence ID/ Work Center I	D	from bendin A/R Alum	2744 Cap as per Dwg D27: ng as per QSI 004 ninum Rod batch: M elds flush as per Dwg D27	Set Up/ Run Hours 50 and QSI 004.Fill groo 1/22399 50 BE 12/9/0	Tool ID oves in bend left 35 / 12/09/09	Tool#	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
120 *120* QC Quality Control		QC10- Inspect visual per	r QSI004- ground welds	0.00	112/05						
*130		QC5- Inspect part compl	leteness to step on W/O	0.00 QAS	roleds, p						
QC Quality Control		Memo		الح ريو 0.00							

											DQA:	Date:	•
NCR:	⁄es	/ No				WORK ORDER NON-C		NFORN	MANCE / UP	DATE	QA Closed:	Date:	
										· *· * ·			
Work Orde	er:					DISPOSITION				AGAINST DE	PARTMENT	/PROCESS	•
Part N	- No					Rework Scrap Use-as-is Work Order Update		Therm	Skid-tube Machining noforming Large Fab	Crosstube Small Fab Finishing Composite	4	Water Jet d. Eng. Coor. re/Packaging Supplier	Engineering Quality Other
Root					Descri	ption of work order update	П	nitial	Act	ion	Sign &		
Cause		Date	Step	Qty	C	or Non-conformance	Ch	ief Eng	Descr	ription	Date	Verification	QC Inspector
Doc/Data Equip/Tooling Operator Material Setup Other Process Supplier Training Unapproved													
						F .	AUL	T CATE	GORY				
Landi	_				_	General		1			7	_	¬
	\vdash	Bending			<u> </u>	Bend	_	Grain			Ovalized	_	Pressure/Forced
	—	Centre No	t Concer	ntric to	o/s	BOM/Route	_	Hardwa			Over/Under	—	Temperature/Cure
·	\vdash	Cracks				Broken/Damaged		1	on Incomplete		Part Incorre	⊢	Weld
	_	Crushed/0	Crimped.		<u> </u>	Burrs	<u></u>	1	ions Incomplete/l	Jnclear	Part Lost/M	issing	Wrong Stock Pulled
	\vdash	Cuffs			_	Contamination	<u></u>	Mainte			Part Moved		
	-	Heat Trea			<u> </u>	Countersink				Positioned \		7	
Inspection Strip in Tube						Cut Too Short	Misread			Power Loss/	'Surge	Other	

Out of Calibration

Out of Sequence

Outside Dimensions

Offset

Ripples in Bend

Turning Sequence

Wave/Twist in Tube

Torque Waves in Extrusion

Drill Holes

Drawing

Finish

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

Work Orde August-24-12 1		386				Page 4					
Item ID: Revision ID:	D350-636-0	11		Accept	*N900	040	100)* s	etup Star Stop	. 14	S1*
Item Name: Skidtube LH Start Date: 8/21/12 Start Qty: 1.00 Required Date: 9/14/12 Req'd Qty: 1.00 Reference:			*1* *1*		Cust Item I Customer:			IV.			
Approvals:	Process Pla	nn:	Date:	Tooling: SPC (Y/N):	Date:			R	kun Star Stop	1/1	R1* R2*
Sequence ID/ Work Center II 140 *140* HandFinish Hand Finishing	Operation Description Chemical Conversion Co		oat per QSI005 4.1	Set Up/ Run Hours 0.00	Tool ID	Tool#	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
150 *150* QC		QC7-Inspect Chemical C	Conversion Coat	0.00					B	12/0	09/06

Quality Control

DQA: _____ Date: ____

NCR: Y	es / No				WORK ORDER NON-	COI	NFORM	MANCE / UP!	DATE			
	•									QA Closed:	Date:	
Work Orde	r·		<u>-</u>		DISPOSITION				AGAINST DE	PARTMENT	/PROCESS	
Part N					Rework Scrap		!	Skid-tube Machining	Crosstube Small Fab	4	Water Jet d. Eng. Coor.	Engineering Quality
NCR N	0				Use-as-is Work Order Update		i	noforming Large Fab	Finishing Composite	Rec/Stor	re/Packaging Supplier	Other :
Root				Descri	ption of work order update	op	nitial	Act	tion	Sign &		
Cause	Date	Step	Qty		or Non-conformance	Ch	ief Eng	Desc	ription	Date	Verification	QC Inspector
Doc/Data		ļ										
quip/Tooling											,	
Operator									•			
Viaterial								,			•	·
Setup	_										,	
Other	_	1									, i	
rocess	_		, ·		· ·			1	•			
Supplier	_											
raining	4											
Jnapproved		<u> </u>	l	L		<u> </u>	TCATE	CODY	- 1			
						-AUL	T CATE	GORY	······			
Landin F					General		10		·	۱	Г	7
-	Bending			o/s	Bend	-	Grain			Ovalized	_	Pressure/Forced
	Centre No	ot Concei	ntric to	^{U/S} -	BOM/Route	\vdash	Hardwa	_	<u> </u>	Over/Under	⊢	Temperature/Cure
. }	Cracks	'C.:		-	Broken/Damaged	\vdash	1	ion Incomplete		Part Incorre	├	Weld
-	Crushed/	Crimpea.	•	-	Burrs	-	4	tions Incomplete/	Unclear	Part Lost/M	_	Wrong Stock Pulled
-	Cuffs				Countamination	\vdash	Mainte			Part Moved		·
-	Heat Trea	-	Tubo	\vdash	Countersink Cut Too Short	\vdash	Mislabe		 	Positioned V		Other
-	rube		Drill Holes	-	Misread	u		Power Loss/	Surge	Other		
-	Ripples in Torque W	vtrucio	<u>,</u> ⊢	Drawing	-	Offset	Calibration	:	•			
-	Turning S			'' 	Finish	Out of Calibration Out of Sequence						
-	Wayo/Tu			-	Folio	\vdash	1	Dimensions				

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

Work Order ID 89386 Page 5 August-24-12 1:47:05 PM Item ID: D350-636-011 Accept Setup Start *N900040100* **Revision ID:** Skidtube LH Item Name: **Start Date:** 8/21/12 Start Qty: 1.00 **Cust Item ID:** Required Date: 9/14/12 Req'd Qty: 1.00 **Customer:** Reference: Run Start Process Plan: Date: Tooling: Approvals: Date: Stop Date: SPC (Y/N): QC: Date: Sequence ID/ Operation Set Up/ Tool ID Tool # Plan Accept Reject Reject Insp. **Work Center ID Description** Code Qty Qty Number Stamp **Run Hours** 160 0.00 Skidtubes *160* Skidtubes 0.00 Memo 1-Open up holes of Detail C and ground handling to 0.625" (total of 8 holes per Skidtubes side) as per dwg D2750. 2-Open up holes of Detail B to 0.750" (total of 4 holes per side) as per dwg D2750. 3- Open float hole to 0.500" (4 per side) 4-Chamfer holes of Detail B, C, ground handling and float holes per dwg D2750 (welding instructions on sheet 8) 5-Deburr and blow out all chips from inside of tube 6- Prepare tube for welding, remove alodine as required. 7-Bond web D2739 in place as per QSI 015 A/R Sikaflex-291 8- Weld spacers D3490-1, D3490-3 and D2743 as per dwg D2750 & QSI004 (welding instructions on sheet 8) A/R Aluminum Rod batch: MB2399 9- At section AJ-AJ drill out x-bolt spacer to 0.404" 10-Grind welds flush as per Dwg D2750

											DQ	(Α:	Date:	
NCR:	Yes	/ No				WORK ORDER NON-	COI	NFORM	/IANCE / UPI	DATE	0.4.61		Data	
							-			···	QA Close	ea:	Date:	
Work Ord	or.					DISPOSITION				AGAINST DE	PARTME	NT/PF	ROCESS	
WOIK OIU	-					Rework	7		Skid-tube	Crosstube	1		Water Jet	Engineering
Part f	No.					Scrap	1		Machining	Small Fab				Quality
	•					Use-as-is	1	Therm	noforming	Finishing	Rec/S	Store/	Packaging	Other
NCR I	No.					Work Order Update]		Large Fab	Composite]		Supplier	
Root					Descri	ption of work order update		Initial	Act	ion	Sign &			
Cause		Date	Step	Qty	(or Non-conformance	Ch	nief Eng	Descr	ription	Date		Verification	QC Inspector
Doc/Data		-												
Equip/Tooling	Ш											- 1		
Operator	Щ													
Material	Ш													
Setup	Ш													
Other	Ш					•								
Process	Ш			· .										
Supplier	Ш													
Training	Ш													
Unapproved		<u></u>	<u> </u>								<u> </u>			
							AUI	LT CATE	GORY					
Landi		1			_	General		7			_		_	7
Ì	-	Bending			· L	Bend		Grain		_	Ovalized		<u> </u>	Pressure/Forced
		Centre No	ot Conce	ntric to	o/s	BOM/Route	L	Hardwa	re		Over/Un		lerance	Temperature/Cure
	Ш	Cracks				Broken/Damaged	\perp	-	on incomplete	<u> </u>	Part Inco			Weld
	Crushed/Crimped_ Burrs							Instruct	ions Incomplete/I	Unclear	Part Lost	t/Missi	ing	Wrong Stock Pulled
Cuffs C						Contamination		Mainte			Part Mov			
	Ш	Heat Trea	it		L	Countersink	L	Mislabe	led		Position			 -
	\Box	Inspection	n Strip in	Tube	L	Cut Too Short		Misread	d .		Power Lo	oss/Su	rge	Other
		Ripples in	Bend			Drill Holes		Offset						

Out of Calibration

Out of Sequence

Outside Dimensions

Turning Sequence

Wave/Twist in Tube

Torque Waves in Extrusion

Drawing

Finish Folio

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

Work Orde August-24-12 1		386		*8	93	86*							Page 6
Item ID: Revision ID: Item Name:	D350-636-01 Skidtube LH	11		Accept		*N9000	14 0	100	*	Setup	Start Stop	*N:	S1* S2*
Start Date: Required Date: Reference:	8/21/12 9/14/12	Start Qty: 1.00 Req'd Qty: 1.00	*1* *1*			Cust Item ID Customer:) :						
Approvals:		n:		Tooling: SPC (Y/N)		Dat				Run	Start Stop	*N *N	R1* R2*
Sequence ID/ Work Center II	D .	Operation Description 11-Spot face dwg D2750		Set Up/ Run Ho ction (total of 4 p		Tool ID	Tool #	Plan Code	Accept Qty	Qty	, I	Reject Number	Insp. Stamp
170 *170* QC Quality Control		QC10- Inspect visual per Memo	QSI004- ground welds	0.00	AS 24 3-69	12.9.20			/y			•	
*180 *180*		QC5- Inspect part comp	eteness to step on W/O	0.00	0AS 24 2-8	19.9.00			12				

Quality Control '

											DQA:	Date:	•
NCR:	Yes	/ No				WORK ORDER NON-	100	NFORM	MANCE / UP	DATE			. •
						<u> </u>	-				QA Closed:	Date:	
Work Ord	۰.					DISPOSITION				AGAINST DE	PARTMENT	/PROCESS	
WOIK OIG	ei.		-			Rework	٦		Skid-tube	Crosstube	1	Water Jet	Engineering
Part I	Vo.					Scrap	1		Machining	Small Fab	Pro	d. Eng. Coor.	Quality
	•					Use-as-is	1		noforming	Finishing	4	re/Packaging	Other
NCR 1	No.					Work Order Update	7		Large Fab	Composite		Supplier	
											-		
Root					ſ	ption of work order update	1	Initial		tion	Sign &		
Cause		Date	Step	Qty	(or Non-conformance	Ch	nief Eng	Desc	ription	Date	Verification	QC Inspector
Doc/Data							İ						
Equip/Tooling	Ш												
Operator	Ш												
Material	Щ												
Setup	Щ												
Other	Щ												
Process	Ш												
Supplier						•							
Training	Ш												
Unapproved				<u> </u>									
					• •		FÁUI	LT CATE	GORY				
Landi	ng (Gear				General		.			7	<u></u>	3
	\vdash	Bending				Bend		Grain			Ovalized		Pressure/Forced
	Ш	Centre No	ot Conce	ntric to	o/s	BOM/Route		Hardwa	re		Over/Under	tolerance	Temperature/Cure
	\Box	Cracks				Broken/Damaged		Inspecti	on Incomplete		Part Incorre	ct	Weld
·	\Box	Crushed/	Crimped.	٠		Burrs	L		ions Incomplete/	Unclear	Part Lost/M	issing	Wrong Stock Pulled
		Cuffs				Contamination		Mainte	nance		Part Moved		
		Heat Trea	at			Countersink		Mislabe	eled		Positioned \	Wrong	_
		Inspectio	n Strip in	Tube		Cut Too Short		Misread	t		Power Loss/	'Surge	Other

Offset

Out of Calibration
Out of Sequence

Outside Dimensions

Turning Sequence

Wave/Twist in Tube

Ripples in Bend

Torque Waves in Extrusion

Drill Holes

Drawing

Finish

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

Work Ord		386		*893	886*							Page 7
Item ID: Revision ID:	D350-636-0	11		Accept	*N900	040	100)* s	Setup St		*N	S1*
Item Name:	Skidtube LH								S	top	*N:	S2*
Start Date: Required Date	8/21/12 e: 9/14/12	Start Qty: 1.00 Req'd Qty: 1.00	*1* *1*		Cust Item I Customer:	D:					٠	
Reference:	· ·	,										
Approvals:	Process Pla	an:	Date:	Tooling:	D	ate:		F		tart top	*NI	R1*
	QC:		Date:	SPC (Y/N):	D	ate:			3	top	*NI	R2*
Sequence ID/ Work Center	ID	Operation Description		Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty		eject umber	Insp. Stamp
190		Pressure Wash per QSI0	05 4.3	0.00								. 1
190 HandFinish		Мето		0.00					-d)	Ц_,	nto st 21
Hand Finishing		Re-alodine	ube as per QSI 005 section	on 4.1.2.1 do not acid etch.								
200		White Gloss(Ref:4.3.5.1) per QS1005 4.3-Alum	0.00				h 1	/			m/
200			- ~ 7.)					<u>/X</u>	<u> </u>		· · ·	-11/ /
Powdercoat Powder Coating		Memo START TIN	1E: 3 /3 /3 /3 /3 /3 /3 /3 /3 /3 /3 /3 /3 /	0.00								10 (09/2
	1228	OVEN TEN FINISH TIN		<u>X</u> 00.								•
210		QC3- Inspect Part Finish	(0.00								
210									Z		(P)	12/09/2
QC		Memo		0.00								//
Quality Control		Inspect for i	oreign object per QSI 024	+								

								DQA:	Date:	
s / No			W	ORK ORDER NON-C	ONFORM	MANCE / UF		QA Closed:	Date:	••
:				DISPOSITION		•	AGAINST DE	PARTMENT	/PROCESS	
). 				Rework Scrap Use-as-is Work Order Update	Thern	Machining	Crosstube Small Fab Finishing Composite			Engineering Quality Other
			Description	n of work order update	Initial		ction	Sign &		
Date	Step	Qty	or No	on-conformance	Chief Eng	Des	cription	Date	Verification	QC Inspector
_					:					
<u> </u>										
_			:					•		
_				•						
						·				
		,								
7										
				F/	AULT CATE	GORY				
				Description	DISPOSITION Rework Scrap Use-as-is Work Order Update Date Step Qty Description of work order update or Non-conformance	DISPOSITION Rework Scrap Use-as-is Work Order Update Initial Date Step Qty Or Non-conformance Chief Eng	DISPOSITION Rework Skid-tube Machining Thermoforming Large Fab Description of work order update Initial A	DISPOSITION Rework Skid-tube Crosstube Machining Small Fab Thermoforming Large Fab Composite Date Step Qty Description of work order update Chief Eng Description Date Step Qty Or Non-conformance Chief Eng Description Date Step Qty Description Description Date Step Qty Or Non-conformance Chief Eng Description Date Step Qty Description Description Date Step Qty Description Description Date Step Qty Or Non-conformance Chief Eng Description Date Step Qty Description Description Description Date Step Qty Description Description Description Description Date Step Qty Description Description	WORK ORDER NON-CONFORMANCE / UPDATE QA Closed: DISPOSITION Rework Scrap Use-as-is Work Order Update Date Date Step Qty Description of work order update or Non-conformance Date Step Qty Description of work order update Or Non-conformance Date Step Qty Description of work order update Or Non-conformance Date Step Qty Description of work order update Or Non-conformance Date Step Qty Description Description Date Step Qty Descriptio	WORK ORDER NON-CONFORMANCE / UPDATE QA Closed: Date: DISPOSITION Rework Scrap Use-as-is Work Order Update Date Date Step Qty Description of work order update or Non-conformance Chief Eng Description Date Step Qty Description of work order update Or Non-conformance Chief Eng Description Date Verification

Landing Gear General Bend Grain Ovalized Pressure/Forced Bending BOM/Route Temperature/Cure Centre Not Concentric to O/S Hardware Over/Under tolerance Broken/Damaged Weld Cracks Inspection Incomplete Part Incorrect Wrong Stock Pulled Crushed/Crimped. Instructions Incomplete/Unclear Part Lost/Missing Burrs Cuffs Maintenance Contamination Part Moved Mislabeled Heat Treat Countersink Positioned Wrong Inspection Strip in Tube Cut Too Short Misread Power Loss/Surge Other Ripples in Bend Drill Holes Offset Drawing Out of Calibration Torque Waves in Extrusion Finish Turning Sequence Out of Sequence Folio **Outside Dimensions** Wave/Twist in Tube

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

Work Ordo				*893	386*							Page 8
Item ID: Revision ID: Item Name:	D350-63 Skidtube			Accept	*N900	040	100)*	Setup	Start Stop	*N *N	S1* S2*
Start Date: Required Date: Reference:	8/21/12 9/14/12	Start Qty: 1.00 Req'd Qty: 1.00	*1* *1*		Cust Item Customer:					G		
Approvals:	Process	Plan:	Date:	Tooling:	D	ate:			Run	Start	*N	R1*
	QC:_		Date:	SPC (Y/N):	D	ate:				Stop	*N	R2*
Sequence ID/ Work Center II	D	Operation Description		Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Rej Qty		Reject Number	Insp. Stamp
*220 *220* HandFinish		HandFinishing Memo		0.00				<u>i</u>	<u>&</u>		P	12/09/24
Hand Finishing		1- Install ins	erts as per Dwg D2750			-						
230			,	0.00						٠		
230 HandFinish		HandFinishing Memo		0.00					8		20	12/09/2.
Hand Finishing		2-Spray insider 2-Spray insider 3-Install blace per dwg D27 SIKA FLEX BATCH:	750 241 2743	batch: <u>W/A</u> arshoes and ground handli	ing hardware as							
			o'ring to plug as per dwg ng lube batch: 12/1	D3492 and apply o'ring lu	be							

5-Coat all exposed fasteners with "LPS Procyon" batch: 1/4 5 9 6

										DQA:	Date:	* * * * * * * * * * * * * * * * * * *
NCR: Y	'es	/ No				WORK ORDER NON-C	O	NFORM	MANCE / UPDATE	-		•
						_				QA Closed:	Date:	•
Work Orde	ır.					DISPOSITION			AGAINST D	EPARTMENT/	PROCESS	
WOIK OIGE	٠					Rework			Skid-tube Crosstube	7	Water Jet	Engineering
Part N	lo.					Scrap			Machining Small Fab	Prod	d. Eng. Coor.	Quality
	•					Use-as-is			noforming Finishing	Rec/Stor	e/Packaging	Other
NCR N	lo.					Work Order Update	J		Large Fab Composite	_	Supplier	J LJ
Root	-				Descri	iption of work order update		nitial	Action	Sign &		
Cause		Date	Step	Qty		or Non-conformance	Ch	ief Eng	Description	Date	Verification	QC Inspector
oc/Data												
quip/Tooling	_											
perator												
1aterial	\dashv											
etup	_				:							
ther						*						
rocess	_			·		•				1		
upplier	_											
raining	_											
napproved				<u> </u>	<u> </u>		<u> </u>	T 0 4 T 5	CORV			
	_						AUL	T CATE	GORY	·····		
Landir !	<u> </u>				_	General		اد:	Г	70	Γ-	7,,,,,,,,,
ì		Bending				Bend	\vdash	Grain	-	Ovalized		Pressure/Forced
		Centre No	t Concer	ntric to	^{O/S} -	BOM/Route	\vdash	Hardwa) 	Over/Under	-	Temperature/Cure
		Cracks			-	Broken/Damaged	\vdash	ł .	ion Incomplete	Part Incorred	 	Weld
,		Crushed/C	rimped.		-	Burrs	-	ł	ions Incomplete/Unclear	Part Lost/Mi	ssing	Wrong Stock Pulled
	_	Cuffs			<u> </u>	Contamination	\vdash	Mainte	. –	Part Moved		,
	4	Heat Treat			<u> </u>	Countersink	<u></u>	Mislabe	 	Positioned V		ا
1	_	Inspection	-	Tube	<u> </u>	Cut Too Short	-	Misread	_	Power Loss/	Surge	Other
	_	Ripples in				Drill Holes	<u></u>	Offset	- 11			
	_	Torque W			n	Drawing		4	Calibration			
		Turning Se	-			Finish	\vdash	1	Sequence			 »
		Wave/Twi	ist in Tub	oe -	İ	Folio	1	Outside	Dimensions			

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

Work Orde		386		*893	386*						Page 9	_
Item ID: Revision ID: Item Name:	D350-636-0 Skidtube LH			Accept	*N900	040	100)* s	etup Start	171.	S1* S2*	
Start Date: Required Date: Reference:	8/21/12 9/14/12	Start Qty: 1.00 Req'd Qty: 1.00	*1* *1*		Cust Item I Customer:	D:					. •	
Approvals:	Process Pla	nn:	Date:		Win	ate:		R	un Start Stop	1/1	R1* R2*	
Sequence ID/ Work Center II 240 *740* QC Quality Control	D	Operation Description QC5- Inspect part comp	eleteness to step on W/O	Set Up/ Run Hours 0.00 SMA 0.00 JA 9-20	Tool ID	Tool # 54/27	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp	-
250 *250* Packaging Packaging		Pick Kit Memo		0.00							12/10/0	2 J.B
260 *260 *260 QC Quality Control		QC4- 100% Inspect kits Memo *******ensi	s for completeness .	0.00 0.00 1A holts******	Molos							

												DQA:	Date:	. <u> </u>
NCR: Y	es	/ No				W	ORK ORDER NON-C	O۱	IFORN	/IANCE / UPI	DATE			· . •
												QA Closed:	Date	:
Nork Orde	r.						DISPOSITION				AGAINST DE	PARTMENT/	PROCESS	
WOIK OIGE	-	<u> </u>					Rework			Skid-tube	Crosstube	1	Water Jet	Engineering
Part N	lo.						Scrap			Machining	Small Fab	Prod	l. Eng. Coor.	Quality
	-					1	Use-as-is			noforming	Finishing	Rec/Stor	e/Packaging	Other
NCR N	0.			<u>. </u>			Work Order Update			Large Fab	Composite]	Supplier	
Root					Descr	iptior	n of work order update		nitial	Act	tion	Sign &		
Cause		Date	Step	Qty		or No	on-conformance	Ch	ief Eng	Descr	ription	Date	Verification	QC Inspector
oc/Data														
quip/Tooling			·											
perator	_													
1aterial	4													
etup	_													
ther	_													
rocess	\dashv						* • ·							
upplier	႕													
raining														
Inapproved				<u> </u>	<u> </u>		F/	\	T CATE	SORY		1		
Landir	ne (iear				·	General		···	-				
	_	Bending			Γ	∃Ber			Grain		Γ	Ovalized		Pressure/Forced
		Centre No	t Concer	ntric to	o/s	ВО	M/Route		Hardwa	re		Over/Under	tolerance	Temperature/Cure
		Cracks				Bro	oken/Damaged		Inspecti	on Incomplete		Part Incorred	t -	Weld
		Crushed/0	Crimped.			Bur	rs		Instruct	ions Incomplete/I	Unclear	Part Lost/Mi	ssing	Wrong Stock Pulled
		Cuffs				Cor	ntamination		Mainte	enance		Part Moved	_	_
ĺ		Heat Trea	t			Cou	untersink		Mislabe	eled		Positioned V	Vrong	
		Inspection	Strip in	Tube	Γ	Cut	: Too Short		Misread	i		Power Loss/	Surge	Other
		Ripples in	Bend		Γ	Dri	II Holes		Offset		_			
		Torque W	aves in E	xtrusio	n	Dra	awing		Out of (Calibration				
		Turning Se	equence			Fini	ish		Out of S	Sequence				
		Wave/Twi	ist in Tub	oe .	Γ	Fol	lio ·		Outside	Dimensions				

Work Order ID 89386 Page 10 August-24-12 1:47:05 PM Item ID: D350-636-011 Accept *N900040100* Setup Start **Revision ID:** Skidtube LH Item Name: 8/21/12 Start Qty: 1.00 **Start Date: Cust Item ID:** Required Date: 9/14/12 Req'd Qty: 1.00 **Customer:** Reference: Run Process Plan: Date: Tooling: **Approvals:** Date: Stop Date: QC: SPC (Y/N): Date: Sequence ID/ Tool ID Accept Operation Set Up/ Tool # Plan Reject Reject Insp. Qty Qty Number Stamp **Work Center ID** Description Code **Run Hours** 270 0.00 Packaging *270* Packaging 0.00 Memo Packaging Package as per PPP D350-636-011

0.00

0.00

QC21- Final Inspection - Work Order Release

Memo

280

QC

280

Quality Control

W12-10-04

NCR: Y	es / No					WORK ORDER NON-C	O	NFORM	/ANCE / UP	DATE		_	
											QA Closed:	Date	
Work Orde	r.		-			DISPOSITION				AGAINST D	EPARTMENT,	/PROCESS	
WOIR OIGE						Rework	1		Skid-tube	Crosstube		Water Jet	Engineering
Part N	lo.				ı	Scrap			Machining	Small Fab	Pro	d. Eng. Coor.	Quality
						Use-as-is			noforming	Finishing	Rec/Sto	re/Packaging	Other
NCR N	lo					Work Order Update			Large Fab	Composite]	Supplier	
Root				Desc	cript	ion of work order update		nitial	Ac	tion	Sign &		
Cause	Date	Step	Qty		or	Non-conformance	Ch	ief Eng	Desc	ription	Date	Verification	QC Inspector
Doc/Data			ļ 1										
Equip/Tooling													
Operator	_												
Material	_		ŀ										
Setup													
Other													
Process	_												
Supplier	_												
Training 	_			(
Unapproved	_						<u> </u>	T CATE	GORV		<u> </u>		<u> </u>
Landir	ng Gear					General	HUL	.i CAIL	JON 1				
[Bending	,		ſ		end		Grain		Г	Ovalized	Г	Pressure/Forced
<u> </u>	— `	, Not Conce	ntric to	o/s		OM/Route	\vdash	Hardwa	re	-	Over/Under	tolerance	Temperature/Cure
	Cracks			7 7	_	roken/Damaged		ł	on Incomplete	<u> </u>	Part Incorre	 	Weld
ļ		l/Crimped	_	4	_	urrs	\vdash	1	ions Incomplete/	'Unclear	Part Lost/M	}	Wrong Stock Pulled
İ	Cuffs			4	\exists_{c}	ontamination	Г	Mainte	•	F	Part Moved	· ·	
ţ	Heat Tr	eat		,]	_	Countersink		Mislabe	led	F	Positioned \		
Ţ		on Strip in	Tube		_	ut Too Short	\vdash	Misread		Ì	Power Loss,	_	Other
Ī	Ripples	•		Ī		rill Holes		Offset		_	·	·	· • · · · · · · · · · · · · · · · · · ·
	Torque	Waves in I	Extrusio	n	\neg c	Prawing		Out of (Calibration				

Out of Sequence

Outside Dimensions

DQA:

Date:

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

Turning Sequence

Wave/Twist in Tube

Finish

Page 1

Work Order ID:

89386

Parent Item:

D350-636-011

Parent Item Name:

Skidtube LH

Start Date: 8/21/12

Required Date: 9/14/12

Start Qty: 1.00

Required Qty: 1.00

Comments:

Rearranged procedure steps KJ IPP Rev:I 02.09.25 IPP Rev:J 06-03-23 As per Rev D JLM IPP Rev:K 06-07.13 As per dsi9343 EC

IPP Rev:L 07-07-28 Added SS Wearplates(Rev E) JLM Verf:EC IPP Rev:M 08-04-22 update steps 4, 13 DD verified by:EC

IPP Rev:N 08-09-23 revF as per dwg DD verified by:ec

IPP Rev:O 09-02-06 apply antiseize on AN8C21A bolts as per PAR09-010 DD IPP Rev:P 10.06.22 revise seq110 DD verf:EC

verf:EC

IPP Rev:Q 10.10.01 as per IIN revH DD verf:EC

Qty on Last Unit of Qty per Kit Total Date Status Component Item ID/ Qty Replacement Mfg/ Bin **Primary** Route Measure Hand Item Name Location Seq ID Qty Issued Issued Item ID Item Location Purch 230 53.0000 Each D3492-1 No Manufactured Plug Loc Qty Loc Code Location 15 FP002 69531 8 74444 2 76235 83259 38 7 83098 31 87662 230 Each 163.0000 D3492-3 No Manufactured Plug

<u>Locatio</u>	<u>n</u>	Loc Qty	Loc Code
FP-A		163	
	81967	5	
	83099	3	
	83529	75	
	85461	20	
	86865	60	

												DQA:	Date	e: _	
NCR:	Yes	/ No				WORK ORDER NON-	COI	NFORM	MANCE / UP	PDATE		QA Closed:	Date	e:	. •
Work Orde	or:					DISPOSITION			<u>.</u>	AGAINST	DE	PARTMENT,	PROCESS		
Part I	No.					Rework Scrap Use-as-is Work Order Update		t Thern	Skid-tube Machining noforming Large Fab	Crosstube Small Fab Finishing Composite		Rec/Stor	Water Jet d. Eng. Coor. e/Packaging Supplier		Engineering Quality Other
Root					1	ption of work order update	1	Initial		ction		Sign &			
Cause		Date	Step	Qty	(or Non-conformance	Cr	nief Eng	Desc	ription		Date	Verification	_	QC Inspector
Doc/Data	Ш													١	
Equip/Tooling															
Operator				:											
Material														- 1	
Setup														- }	
Other							1							- 1	
Process															
Supplier															
Training															
Unapproved					1										
						F	AUI	LT CATE	GORY						
Landi	ng (Gear				General						···· · · · · · · · · · · · · · · · · ·			-
1		Bending				Bend	Г	Grain				Ovalized		\neg	Pressure/Forced
		Centre No	ot Concer	ntric to	o/s	BOM/Route		Hardwa	re			Over/Under	tolerance		Temperature/Cure
		Cracks				Broken/Damaged		Inspecti	on Incomplete			Part Incorre	ct F	ヿ	Weld
		Crushed/	Crimped.			Burrs		-	ions Incomplete	/Unclear		Part Lost/Mi	ssing	ヿ	Wrong Stock Pulled
		Cuffs	•			Contamination		Mainte	•			Part Moved	- L		•

Mislabeled

Out of Calibration

Out of Sequence

Outside Dimensions

Misread

Offset

Positioned Wrong

Power Loss/Surge

Other

Turning Sequence

Wave/Twist in Tube

Ripples in Bend

Heat Treat

Inspection Strip in Tube

Torque Waves in Extrusion

Countersink

Cut Too Short

Drill Holes

Drawing

Finish Folio

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

August-24-12 1:47:04 PM

Work Order ID: Parent Item: Parent Item Name:	89386 D350-636-011 Skidtube LH							Date: 8/21/12 Qty: 1.00		=	Date: 9/14/12 Qty: 1.00
NAS1149D0863J WASHER		Purchased	No		250	Each	167.0000	2	2	23	
•				Location	Loc Oty		Loc Code				
•				ST298	167						
				118078	28						
				119307	1						
				120308	38			120	308		
				121556	100						
NAS1611-010 O-RING		Purchased	No		230	Each	216.0000	<u>*</u>	8	P	12/09/24
				Location	Loc Oty		Loc Code				/ /
				FP001	216						
				110915	14						
				117460	8						
				118077	1						
				118612	3						
				119438	47						
				121259	2						
				121584 121723	2 7						
				122151	132						
D2744		Manufactured	No	122131	110	Each	43.0000	1	1	6	BC12/09/04
Сар		·		<u>Location</u>	Loc Qty		Loc Code				
				LG002	43						
				62715	1						
		•		83412	4						
				03412	7			-	,		

85506

											D	QA:	Date	e:	• •
NCR:	Yes	/ No				WORK ORDER NON-C	100	NFOR	MANCE / UP	DATE	04.61-	1.	D-1-		. •
1								•			QA Clo	sea:	Date	2:	
Work Ord	er.					DISPOSITION				AGAINST DE	PARTM	ENT	/PROCESS		<i>3</i>
Part f	No.					Rework Scrap Use-as-is Work Order Update		! Thern	Skid-tube Machining noforming Large Fab	Crosstube Small Fab Finishing Composite	Rec,		Water Jet d. Eng. Coor. re/Packaging Supplier		Engineering Quality Other
							J				J				
Root					Descri	ption of work order update		Initial	Ac	tion	Sign	&			**************************************
Cause		Date	Step	Qty	(or Non-conformance	Ch	nief Eng	Desc	ription	Dat	e	Verification		QC Inspector
Doc/Data Equip/Tooling Operator Material Setup Other Process Supplier Training Unapproved								·							
						F	AUI	LT CATE	GORY						
Landi	ding Gear Bending Centre Not Concentric to O/S Cracks Crushed/Crimped Cuffs Heat Treat Inspection Strip in Tube				o/s	General Bend BOM/Route Broken/Damaged Burrs Contamination Countersink Cut Too Short	Grain Hardware Inspection Incomplete Instructions Incomplete/Unclear Maintenance Mislabeled Misread Over/Under tolerance Part Incorrect Part Lost/Missing Part Moved Positioned Wrong Power Loss/Surge						ressure/Forced emperature/Cure Veld Vrong Stock Pulled Other		
		Ripples in	Bend			Drill Holes							_		

Out of Calibration

Out of Sequence

Outside Dimensions

Turning Sequence

Wave/Twist in Tube

Torque Waves in Extrusion

Drawing

Finish

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

Picklist Print

August-24-12 1:47:04 PM

Page 3

Work Order ID:	89386				TO THE STATE OF TH	And the same of th				
Parent Item:	D350-636-011								Date: 8/21/12	Required Date: 9/14/12
Parent Item Name:	Skidtube LH							Start	Qty: 1.00	Required Qty: 1.00
D2600-3-BENT Extrusion Bent		Manufactured	No			110	Each	26.0000	1	12/09/04
				Locatio	<u>on</u>	Loc Qty		Loc Code		
•	•			LG		26				
					66875	7				_
					73253	1				
					75021	i				_
					75022	1				_
					75023	1				_
					81330	4				_
					83305 88712	10			-	
D0543			NI.	(88/12			102.0000		
D2743		Manufactured	No			160	Each	193.0000	8	8 SED/09/17
Crossbolt Spacer						•				- Degoffi -
				Location	<u>)n</u>	Loc Qty		Loc Code		/
				LG		119			****	<u> </u>
					81965	23				<u>.</u>
					83262	2				_
					85459	51			— 	_
					86896	43			<u></u>	_
				LG001		74				_ •
					67766	4				-
					68251	3				_
					73403	64				_
	•				74445	1 2				_
7.47 00			N1.		79517			7 0000	1	
D2739 350 I Beam		Manufactured	No			160	Each	7.0000		B 12/09/12
				Location	n /	Loc Oty		Loc Code		(1
				LG		673) T		<u> Loc Code</u>		
				LG	72155	(60)				_
					81508	, i				_
					85487	2				-
					86615	. 1				_
					87734	2				

											DQA:	Date:	
NCR:	Yes	/ No				WORK ORDER NON-C	ON	NFORI	MANCE / UP		QA Closed:	 Date:	. •
Mante Oud						DISPOSITION				AGAINST DE			
Work Ord Part I	-					Rework Scrap Use-as-is		1	Skid-tube Machining noforming	Crosstube Small Fab Finishing	4	Water Jet d. Eng. Coor.	Engineering Quality Other
NCR 1	۷o					Work Order Update			Large Fab	Composite		Supplier	
Root					Descri	ption of work order update	1	nitial	Ac	tion	Sign &		
Cause	\)	Date	Step	Qty	C	or Non-conformance	Ch	ief Eng	Desc	ription	Date	Verification	QC Inspector
Doc/Data													
Equip/Tooling													
Operator									<u>.</u>				
Material													
Setup													
Other											1		
Process													
Supplier										•			
Training													
Unapproved			<u>.</u>										
						F/	AUL	T CATE	GORY				
Landi	ng G	ear				General					_		-
	Ш	Bending			_	Bend		Grain			Ovalized		Pressure/Forced
	Ш	Centre No	ot Concer	ntric to	o/s	BOM/Route	Ŀ	Hardwa	re		Over/Under	tolerance	Temperature/Cure
		Cracks				Broken/Damaged		Inspect	on Incomplete	· <u>L</u>	Part Incorre	ct	Weld
		Crushed/	Crimped.			Burrs		Instruct	ions Incomplete/	'Unclear	Part Lost/M	ssing	Wrong Stock Pulled
		Cuffs				Contamination		Mainte	nance		Part Moved		
	Ш	Heat Trea	t			Countersink		Mislabe	led		Positioned V	Vrong	-
	Ш	Inspection	n Strip in	Tube		Cut Too Short		Misread	i		Power Loss/	Surge	Other
		Ripples in	Bend			Drill Holes		Offset					
	Torque Waves in Extrusion Drawing							Out of (Calibration				

Out of Sequence

Outside Dimensions

Turning Sequence

Wave/Twist in Tube

Finish

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

· August-24-12 1:47:04 PM

Work Order ID: Parent Item:	89386 D350-636-011								ate: 8/21/12		Required Date: 9/14/12
Parent Item Name:	Skidtube LH							Start (Qty: 1.00		Required Qty: 1.00
D3490-3 Cross Bolt Spacer		Manufactured	No	•		160	Each	66.0000	4	4	BE12/07/19
				Location		Loc Qty		Loc Code			. ,
				LG001		66			_	,	
					85420	26				<i></i>	
					86980	40					
03490-1		Manufactured	No			160	Each	11.0000	4	4	BE12/071
Cross Bolt Spacer				Location		Loc Qty		Loc Code		<	B88617 +4
				LG		2					
					81976	2					
				LG001		9					
					62450	2					
					74875	4					
					77042	3					
ALS4-1032-225 nsert		Purchased	No			220	Each	1,981.0000	38 - 7 <i>5</i>	38	D 12/09/24
				Location		Loc Qty		Loc Code	<i></i>		, , ,,,
				FP-B		1542					
					122290	1542					
				ST281		416					
					108696	146					
					110768	62					
					118386	55					
					118966	68					
					121269	85					
				ST282		23					
					120410	10					
					120451	13					

											DQA:	Date:	• • •
NCR:	Yes	/ No				WORK ORDER NON-	COI	NFORM	MANCE / UP	DATE	04.61		•
								T			QA Closed:	Date:	
Work Ord	or.					DISPOSITION				AGAINST DE	PARTMENT	/PROCESS	
Work Ord	CI.					Rework	1		Skid-tube	Crosstube		Water Jet	Engineering
Part	No.					Scrap		1	Machining	Small Fab	Pro	d. Eng. Coor.	Quality
						Use-as-is	1		noforming	Finishing	1	re/Packaging	Other
NCR	No.					Work Order Update]		Large Fab	Composite		Supplier	
				1 1		<u> </u>			<u> </u>		i -: -	1	
Root						ption of work order update	1	Initial		ction	Sign &		
Cause		Date	Step	Qty		or Non-conformance	1 Cr	nief Eng	Desc	cription	Date	Verification	QC Inspector
Doc/Data	<u> </u>		j										
Equip/Tooling	<u> </u>												
Operator	_		1										
Material	<u></u>												
Setup	_												
Other	<u> </u>		İ										
Process	\vdash												
Supplier													
Training	<u> </u>												
Unapproved	<u> </u>		<u> </u>										
							AUI	LT CATE	GORY			100.00	
Land	ing (1				General		7			7		7
	<u> </u>	Bending			_	Bend		Grain			Ovalized		Pressure/Forced
į	\vdash	Centre N	ot Conce	ntric to (D/S	BOM/Route		Hardwa		_	Over/Under	tolerance	Temperature/Cure
`	<u></u>	Cracks			_	Broken/Damaged	_	4	ion Incomplete	_	Part Incorre	ct	Weld
	Crushed/Crimped. Burrs							Instruct	ions Incomplete	/Unclear	Part Lost/Missing W		Wrong Stock Pulled
	Cuffs Contamination						L	Mainte	nance		Part Moved		
ļ		Heat Trea	at			Countersink	Mislabeled				Positioned \	_	
		Inspectio	n Strip in	Tube		Cut Too Short		Misread	i		Power Loss,	/Surge	Other

Offset

Out of Calibration

Out of Sequence

Outside Dimensions

Turning Sequence

Wave/Twist in Tube

Ripples in Bend

Torque Waves in Extrusion

Drill Holes

Drawing

Finish

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

Picklist Print

August-24-12 1:47:04 PM

Page 5

Work Order ID: Parent Item: Parent Item Name:	89386 D350-636-011 Skidtube LH								Date: 8/21/12 Qty: 1.00	=	ed Date: 9/14/12 red Qty: 1.00
D3793-3 Wearshoe		Manufactured	No			230	Each	22.0000	1	100	12/09/24
				Locatio	<u>n</u>	Loc Qty		Loc Code			
				FP001	,	22					
					83394	4					
					83901	6			-		
					87135	12					
AN8C35A BOLT		Purchased	No			230	Each	35.0000	1		12/09/24
				Locatio	<u>n</u>	Loc Oty		Loc Code			1 '
				FP002	_	34					
					115960	1					
					121275	33					
				ST346		1					
					114442	0					
					115188	0					
					115960	1					•
D3793-1 Wearshoe		Manufactured	No			230	Each	19.0000	1	100	12/09/24
				<u>Locatio</u>	<u>n</u>	Loc Oty		Loc Code		_	' '
				FP001		19					
					82171	2					
					83903	5					
					87273 🗸	12					
D3488-041 Blade Fitting Assembly	, LH	Manufactured	No			230	Each	15.0000	1	1 (P)	12/09/24
				Locatio	n	Loc Qty		Loc Code	_		ι , (
				FP001	_	3					
					85807	3					
				FP002		12					
				11002	83407	7			**		
					85733	5					

NCR:	Yes	/ No				WORK ORDER NON-	COI	NFORM	MANCE / UPI	DATE			
		•									QA Closed:	Date:	•
Work Orde	er:					DISPOSITION	_			AGAINST D	EPARTMENT,	PROCESS	
Part f	•					Rework Scrap Use-as-is Work Order Update		! Therm	Skid-tube Machining noforming Large Fab	Crosstube Small Fab Finishing Composite	_	Water Jet d. Eng. Coor. ee/Packaging Supplier	Engineering Quality Other
	٠٠٠.					тоткотох ористо							
Root Cause		Date	Step	Qty	L	ption of work order update or Non-conformance	1	Initial nief Eng		tion ription	Sign & Date	Verification	QC Inspector
Doc/Data Equip/Tooling Operator Material Setup Other Process Supplier Training Unapproved													
						F	AU	LT CATE	GORY				
Landi		Bending Centre No Cracks Crushed/ Cuffs Heat Trea Inspectio Ripples in	Crimped at n Strip in n Bend	Tube		General Bend BOM/Route Broken/Damaged Burrs Contamination Countersink Cut Too Short Drill Holes		Instruct Mainte Mislabe Misread Offset	ion Incomplete ions Incomplete/ enance eled	Unclear	Ovalized Over/Under Part Incorre Part Lost/M Part Moved Positioned V Power Loss/	ct sissing Vrong	Pressure/Forced Temperature/Cure Weld Wrong Stock Pulled Other
1	Torque Waves in Extrusion Drawing						-	Out of 0	Calibration				

Out of Sequence

Outside Dimensions

DQA:

Date:

Turning Sequence

Wave/Twist in Tube

Finish

August-24-12 1:47:04 PM

Work Order ID: Parent Item:	89386 D350-636-011								Date: 8/21/12	-	red Date: 9/14/12
Parent Item Name:	Skidtube LH							Start	Qty: 1.00	Requ	ired Qty: 1.00
D3794-3 Gasket		Manufactured	No			230	Each	26.0000	1	1 PP	12/09/24
				Locatio	<u>n</u>	Loc Qty		Loc Code			, .
				FP002		26	5				
					74530		2				
					86243	24	ļ				
AN6C44A BOLT		Purchased	No			230	Each	86.0000	4 1/	(A)	17/09/24
				Locatio	<u>n</u>	Loc Qty		Loc Code	•		l v
				FG		2	2				
					103964		2				
				ST340		64	1		·		
					122491	64					
				ST343	•	20)				
					121013	1					
					122204		•				
4S21083C8 IUT		Purchased	No			230	Each	66.0000	1	50	12/09/24
				Locatio	<u>n</u>	Loc Qty		Loc.Code			,
				318		3'	7				
	•				122452	3′					
	11/1			FP002			l				
	XX				115884		l				
	1 1			ST303			1				
					115884	()				
					118077		l				
					119309	:	2				•
					119638		l				
				ST321		24	4				
					122141	24	1			_	
					122441						

NCR:	Yes	/	No

										DQA:	Date	
NCR: Y	es / No				WORK ORDER NON-	100	VFOR	MANCE / UPDATE		•		
										QA Closed:	Date	<u>:</u>
Work Orde	r:				DISPOSITION			AGAIN	IST DI	PARTMENT	/PROCESS	
Part N					Rework Scrap Use-as-is		l	Skid-tube Crosstu Machining Small F noforming Finish	Fab	-	Water Jet d. Eng. Coor. re/Packaging	Engineering Quality Other
NCR N	0		<u></u>		Work Order Update			Large Fab Compos	~ ⊢]	Supplier	
Root				Descri	iption of work order update	T	nitial	Action		Sign &		
Cause	Date	Step	Qty		or Non-conformance	Ch	ief Eng	Description		Date	Verification	QC Inspector
oc/Data												
quip/Tooling												
perator			1									
/laterial												
etup												
Other												
rocess				ļ								
Supplier												
raining												
Jnapproved	7											
					F	FAUL	T CATE	GORY				
Landin	g Gear				General		_			_		
	Bendin	g			Bend		Grain			Ovalized		Pressure/Forced
	Centre	Not Conce	ntric to	o/s	BOM/Route		Hardwa	re		Over/Under	tolerance	Temperature/Cure
. [Cracks				Broken/Damaged		Inspect	ion Incomplete		Part Incorre	ct	Weld
	Crushe	d/Crimped			Burrs		Instruct	ions Incomplete/Unclear		Part Lost/Mi	issing	Wrong Stock Pulled
	Cuffs				Contamination		Mainte	enance		Part Moved	_	
Ī	Heat Tr	eat			Countersink		Mislabe	eled		Positioned V	Vrong	
	Inspect	ion Strip in	Tube		Cut Too Short		Misread	t		Power Loss/	Surge	Other
ľ	Ripples in Bend Drill Holes						Offset					
ſ	Torque Waves in Extrusion Drawing						Out of	Calibration				
ľ	Turning	sequence	:		Finish		Out of	Sequence				
Ī		Twict in Tul			Folio		1	Dimonsions			·······	

• August-24-12 1:47:04 PM

Work Order ID: Parent Item:	89386 D350-636-011					Date: 8/21/12	Required Date: 9/14/12
Parent Item Name: D3536-25 Gasket	Skidtube LH Manufactured	No		230 Each		t Qty: 1.00	Required Qty: 1.00
Gasket			Location FP 83900	<u>Loc Otv</u> 13	Loc Code		
D3631-1 Washer	Manufactured	No	87053	230 Eacl	83.0000	8 8	D 12/09/24
		-	Elocation FG \$9277 81874 83588 ST072 68062	Loc Oty 68 2 66 15 2	<u>Loc Code</u>		' .'
D3791-1 Wearplate	Manufactured	No	75548	13 230 Eacl	17.0000	1	100 12/09/24
	**		Location FP001 87422 FP002 62239 83392 83902	Loc Oty 10 10 7 2 1 4	Loc Code		
AN960C10L washer	NAS1149C0332R Purchased	No	Location ST 22063	230 Eac. Loc Oty 21 21	1 21.0000 <u>Loc Code</u>	38	38 1 2/09/24

											DQA:	Date:	
NCR:	⁄es	/ No				WORK ORDER NON-C	10:	VFORM	MANCE / UPD	ATE			
											QA Closed:	Date:	
						DISPOSITION				AGAINST DE	PARTMENT	/PROCESS	
Work Ord	er: .					Rework			Skid-tube	Crosstube	1	Water Jet	Engineering
Part I	NO.					Scrap			Machining	Small Fab	Pro	d. Eng. Coor.	Quality
, and	•0.					Use-as-is			noforming	Finishing	4	re/Packaging	Other
NCR I	۷o.					Work Order Update			Large Fab	Composite		Supplier	
	•						•						
Root					1	ption of work order update	1	Initial	Actio		Sign &		
Cause		Date	Step	Qty	(or Non-conformance	Ch	nief Eng	Descri	otion	Date	Verification	QC Inspector
Doc/Data					i i				i.				
Equip/Tooling	_					•							
Operator	<u> </u>										1		
Material	$ldsymbol{ldsymbol{ldsymbol{eta}}}$												
Setup	<u> </u>												
Other	<u> </u>												
Process					:		1					1	
Supplier	<u> </u>												
Training													
Unapproved			<u> </u>	<u> </u>			<u> </u>	-	600%				
Landi						General	AUI	LT CATE	GURY	 			
Lanui	ll C	Bending				Bend	Г	Grain			Ovalized		Pressure/Forced
	-		ot Concor	ntric to	0/5	BOM/Route	┝	-[uro.	-	-	tolerance	Temperature/Cure
	Centre Not Concentric to O/S BOM/Route Cracks Broken/Damaged					Hardware Over/Under tolerance Part Incorrect					 	Weld	
	Crushed/Crimped Burrs					⊢	4 '	·	nclear	Part Lost/M	<u> </u>	Wrong Stock Pulled	
Cuffs Contamination					Instructions Incomplete/Unclear Maintenance				Part Moved	ـــا.	Tantonik prock Lanea		
						Mislabeled				Positioned Wrong			
	Heat Treat Countersink Inspection Strip in Tube Cut Too Short				Cut Too Short					Other			

Offset

Out of Calibration

Out of Sequence

Outside Dimensions

Turning Sequence

Wave/Twist in Tube

Ripples in Bend

Torque Waves in Extrusion

Drill Holes

Drawing

Finish

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

August-24-12 1:47:04 PM

Work Order ID:	89386										
Parent Item:	D350-636-011				•			Start I	Date: 8/21/12	Requi	red Date: 9/14/12
Parent Item Name:							Start	Qty: 1.00	Requ	Required Qty: 1.00	
D2745 Bushing		Manufactured	No	du.		230	Each	62.0000	8	8 	12/09/24
	e e e			<u>Locatio</u> FP	<u> </u>	<u>Loc Qty</u> 58		Loc Code			(/)
				1.1	06870° 79518	6					
					85416	52					
				FP001		4					
				11001	69529	i			·····		
					76142	1					
					83260	2					
AN3C5A Bolt		Purchased	No			230	Each	1,513.0000	34 - ZU	34	12/09/24
				Locatio	n	Loc Oty		Loc Code	<i>J</i> 1		(' '/
				FP001	_	7					
					115835	7			-		
				ST350		1506					
					115835	0					•
					116419	28					
					117343	13					
					117764	7					
					117872	2					
					119749 120423	23 28					
					120423	28 27			-		•
					121708	500			-		
					122141	278					
					122800	600					
D3537-1		Manufactured	No			230	Each	55.0000	³ Ø	3	. /
Wearpad										_(DB	12/09/24
				Locatio	<u>n</u>	Loc Oty		Loc Code			(' '
				FP002	22951/	55					
					83254	1			_	_	•
		•			83255	. 3					
					85712	51					

												DQA:	Date:	. 4
NCR: Y	es	/ No					WORK ORDER NON-C	O	NFOR	MANCE / UPDATE		-		
											<u></u>	QA Closed:	Date:	•
Work Order:							DISPOSITION			AGA				
Rework								Skid-tube Crosstube Wate				Engineering		
Part No. Scrap								Machining Small Fab Prod. Eng. Coor. Qua						
Use-as-is							Thermoforming Finishing		ishing	Rec/Store/Packaging		Other		
NCR No. Wo							Work Order Update			Large Fab Comp	oosite		Supplier	
		r			Danas		*:		nitial	Action		Sign &		
Root Cause		Date	Step	Qty		•	tion of work order update Non-conformance	Chief Eng		Description		Date	Verification	QC Inspector
oc/Data	+	Date	step	Qty	,	or Non-comormance			Description			Date	Vermeation	QC HISPECTOI
quip/Tooling	┨													
perator	\dashv													
laterial	ヿ													
etup	ヿ													
ther	╗												:	
rocess	ヿ												٠	
upplier	╗													
raining	┨													
napproved				•										
•							F/	AUL	T CATE	GORY				
Landir	ng G	ear					General				··		·	
	Bending			_	Bend		Grain			Ovalized		Pressure/Forced		
	Centre Not Concentric to O/S			BOM/Route		Hardware			Over/Under tolerance		Temperature/Cure			
		Cracks			Broken/Damaged		Inspection Incomplete			Part Incorrect		Weld		
		Crushed/Crimped_			Burrs		Instructions Incomplete/Unclear			Part Lost/Missing Wrong Stock Pulled				
	Cuffs				Contamination		Maintenance			Part Moved				
	Heat Treat				Countersink		Mislabeled			Positioned Wrong				
	Inspection Strip in Tube				Cut Too Short		Misrea	b		Power Loss/Surge Other				
[Ripples in Bend				Drill Holes		Offset							
	Torque Waves in Extrusion				Drawing		Out of	Calibration						
	Turning Sequence				Finish		Out of	Sequence						
	Wave/Twist in Tube				٦	Folio		Outside	Dimensions					

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

· August-24-12 1:47:04 PM

Work Order ID: Parent Item: Parent Item Name:	89386 D350-636-011 Skidtube LH								Date: 8/21/12 Qty: 1.00		red Date: 9/14/12
NAS1149C0832R WASHER		Purchased	No			230	Each	424.0000	1		12/09/24
	L. 4			Locatio	<u>n</u>	Loc Oty		Loc Code	,		
				296		200					
					122441	200					
				ST297		224					
					114915	224					
AN3C6A BOLT		Purchased	No			230	Each	1,169.0000	4	(AP)_	12/09/24
				Locatio	<u>n</u>	Loc Oty		Loc Code	•		i i
				FP001		1					
					111982	1					
				ST351		1168					
					111982	2					
					116419	23					
					116549	2					
					116704	12					
					117619	10					
					117688	1					
					117872	5					
					118422 119449	13 21					
					120423	3					
					120693	72					
					121682	4					
					122416	500					
					122599	500					

											DQA:	Date:	
NCR:	Yes	/ No				WORK ORDER NON-	COI	NFORN	ANCE / UP	DATE			
							,				QA Closed:	Date:	
Work Ord	or.					DISPOSITION				AGAINST DE	PARTMENT	/PROCESS	
Part I	No					Rework Scrap Use-as-is Work Order Update	Skid-tube Crosstube Machining Small Fab Thermoforming Finishing Large Fab Composite			-i	Water Jet d. Eng. Coor. re/Packaging Supplier	Engineering Quality Other	
Root			-		Descri	ption of work order update		Initial	Ac	tion	Sign &		
Cause		Date	Step	Qty	(or Non-conformance	Ch	nief Eng	Desc	ription	Date	Verification	QC Inspector
Doc/Data Equip/Tooling Operator Material Setup Other Process Supplier Training Unapproved													
							AUI	LT CATE	GORY				
Landi		Bending Centre No Cracks Crushed/ Cuffs Heat Trea	Crimped. at n Strip in		o/s	General Bend BOM/Route Broken/Damaged Burrs Contamination Countersink Cut Too Short		Instruct Mainte Mislabe Misreac	on Incomplete ions Incomplete/ nance led	Unclear	Ovalized Over/Under Part Incorre Part Lost/M Part Moved Positioned Power Loss	ect lissing Wrong	Pressure/Forced Temperature/Cure Weld Wrong Stock Pulled Other
1	1 1	Ripples in	Bend			Drill Holes		Offset					

Out of Calibration

Out of Sequence

Outside Dimensions

Turning Sequence

Wave/Twist in Tube

Torque Waves in Extrusion

Drawing

Finish

Folio

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

. August-24-12 1:47:04 PM

Work Order ID: Parent Item: Parent Item Name:	D350-636-011 Skidtube LH								Date: 8/21/12 Qty: 1.00	=	red Date: 9/14/12 nired Qty: 1.00
NAS1611-013 O-RING		Purchased	No			230	Each	168.0000	8	8	12/09/24
				Location	<u>n</u>	Loc Qty	-	Loc Code			, , .
				FP001		168				<u> </u>	
					116582	5					
					117291	2					
					117887	53					
					119623	36					
					121825	30					
					121826	42					_
D3535-25 Wearshoe		Manufactured	No			230	Each	26.0000	1	(P)	12/09/24
				Locatio	<u>n</u>	Loc Qty		Loc Code			• •
				FP001		26					
					62233	1					
					81357	I					
					83387	11					
					87385	13					
D3794-1 Gasket		Manufactured	No			230	Each	17.0000	1	100	12/09/24
				Locatio	<u>n</u>	Loc Oty		Loc Code			1 - 1
				FP		12					
					87631	12					
				FP002		5				· 	
				1.00-	83395	5					
MS21043-6 NUT ,		Purchased	No			230	Each	486.0000	4 4	46P	12/09/24
				Locatio	n	Loc Oty		Loc Code			
				FG		20					
				. 0	103693	20					
				ST301		466					
				31301	117887	2					
					120308	464					

												DQA:	Da	te:	
NCR:	Yes	/ No				WORK ORDER NON-O	100	VFORM	MANCE / UP	DATE		_			
		•									C	A Closed:	Da	te:	· *
Work Ord	or.					DISPOSITION				AGAINST DI	EP/	ARTMENT/	PROCESS		
Work Ord	C1.					Rework	1	Skid-tube Crosstu				Water Jet			Engineering
Part !	Vα.					Scrap	1		Machining	Small Fab	1	Prod	d. Eng. Coor.	\vdash	Quality
						Use-as-is	1		noforming	Finishing	1		e/Packaging	-	Other
NCR I	NCR No. Work					Work Order Update	1		Large Fab	Composite	1		Supplier		
															-
Root					Descri	ption of work order update	1	Initial	Ac	tion		Sign &			
Cause		Date	Step	Qty		or Non-conformance	Ch	ief Eng	Desc	ription	\perp	Date	Verification	n	QC Inspector
Doc/Data							1								
Equip/Tooling															
Operator									ĺ						
Material															
Setup															
Other											-				
Process				1											
Supplier															
Training	<u> </u>		ļ								ı				
Unapproved			<u> </u>	<u> </u>											
							AUI	LT CATE	GORY						
Landi	ng (1				General		1			_				1 .
		Bending			<u> </u>	Bend	<u> </u>	Grain		_	-	Ovalized		<u> </u>	Pressure/Forced
	Centre Not Concentric to O/S BOM/Route						<u> </u>	Hardwa		<u> </u>	┥.	Over/Under		\vdash	Temperature/Cure
·	——————————————————————————————————————					Broken/Damaged	\vdash	4 '	ion Incomplete			Part Incorred		_	Weld
Crushed/Crimped. Burrs					\vdash	4	tions Incomplete/	'Unclear	-	Part Lost/Mi	ssing	L	Wrong Stock Pulled		
Cuffs Contamination					Maintenance				┥.	Part Moved					
Heat Treat Countersink					Mislabeled				Positioned Wrong		_	,			
	Inspection Strip in Tube Cut Too Short							Misread Power Loss/Surge					Other		

Offset

Out of Calibration

Out of Sequence

Outside Dimensions

Ripples in Bend

Turning Sequence

Wave/Twist in Tube

Torque Waves in Extrusion

Drill Holes

Drawing

Finish Folio · August-24-12 1:47:04 PM

	Work Order ID: Parent Item: Parent Item Name:	89386 D350-636-011 Skidtube LH								Date: 8/21/12 Qty: 1.00	!	Required Date	
5	D3493-1 Washer		Manufactured	No			250	Each	47.0000	2	2	go	<u>_</u> Cu
•					Locatio	<u>n</u>	Loc Oty		Loc Code				
					ST050		47						
					4	77573	1						
						82023	2						
						83097	44			83	097		
(MS21083C8 NUT		Purchased	No			250	Each	66.0000	2	2	18	<u>E</u>
					Locatio	<u>n</u>	Loc Qty		Loc Code			0	
		•			318		37						
						122452	37			12	2452	,	
					FP002		1			-	_		
						115884	1						
			÷		ST303		4						
					0.000	115884	0						
						118077	1						
						119309	2						
						119638	1						
					ST321		24					er.	
						122141	24						
5	AN8C21A BOLT		Purchased	No			250	Each	51.0000	2	2	138	12/10/03
					Locatio	<u>n</u>	Loc Qty		Loc Code			V	, ,
					ST341		25						
						122519	25						
					ST343		26						
					31515	118758	1						
						122204	25			13	2204		

NCR:	Yes /	No No

WORK ORDER NON-CONFORMANCE / LIPDATE

DQA: _____ Date: ____

NCR:	es	/ NO				WORK ORDER IN	NOIN-CO	NFOR	VIANCE / OF	DAIL	QA Closed:	Date:	. •
Work Orde	ır.					DISPOSITION	N			AGAINST DE	PARTMENT/	PROCESS	
Part N						II .	rap	,	Skid-tube Machining	Crosstube Small Fab	4	Water Jet	Engineering Quality Other
NCR I	10.					Use-a Work Order Upo			noforming Large Fab	Finishing Composite	Rec/Stor	e/Packaging Supplier	Other
Root					Descr	ription of work order up	date	Initial	Act	tion	Sign &]
Cause		Date	Step	Qty		or Non-conformance	CI	nief Eng	Desci	ription	Date	Verification	QC Inspector
oc/Data													
quip/Tooling													
perator							1						
/laterial													
etup													
ther					İ								
rocess													
upplier													
raining													
Inapproved			l		<u> </u>						<u> </u>		
					-		FAU	LT CATE	GORY				
Landi	ng (1				General	_	٦			7	_	7
		Bending			<u> </u>	Bend	L	Grain			Ovalized		Pressure/Forced
		Centre No	ot Concer	ntric to	o/s	BOM/Route	L	Hardwa			Over/Under	 	Temperature/Cure
		Cracks				Broken/Damaged		⊣	ion Incomplete	<u></u>	Part Incorre	 	Weld
		Crushed/0	Crimped.		L	Burrs		-	ions Incomplete/	Unclear	Part Lost/M	ssing	Wrong Stock Pulled
		Cuffs			L	Contamination		Mainte			Part Moved		
		Heat Trea	t			Countersink		Mislabe	eled		Positioned V	Vrong	
		Inspection	n Strip in	Tube		Cut Too Short		Misread	t		Power Loss/	Surge	Other
		Ripples in	Bend			Drill Holes		Offset					
		Torque W	aves in E	Extrusio	n 🗌	Drawing		Out of	Calibration				
		Turning S	equence			Finish		Out of	Sequence				
		Wave/Tw	ist in Tub	oe .	Γ	Folio		Outside	Dimensions				

· August-24-12 1:47:04 PM

Work Order ID: Parent Item: Parent Item Name:	89386 D350-636-011 Skidtube LH							Date: 8/21/12 t Qty: 1.00	_	Date: 9/14/12 d Qty: 1.00
NAS1515H3L WASHER		Purchased	No		230	Each	247.0000	4	4(90)	12/09/24
				Location	Loc Qty		Loc Code	'		' (
				FG	40					
				102472	40					
				ST277	207					
				118686	3					
				120360	11				.	
				121556	45			-		
DAT 14			3. I.	122151	148	P. d	21.0000			
D2741 Blade, 350 Skidtube	•	Manufactured	No		250	Each	31.0000	888	24 gB	
				Location	Loc Qty		Loc Code		•	
				ST	-10					
				ST466	41					
				71856	1					
				83135	1					
/				85480	29					
D3532-1 Spacer		Manufactured	No		250	Each	30.0000	2	2 - J	B 12/19/0
				Location	Loc Oty		Loc Code		V	$\hat{\gamma}$
				ST056	30			_		\mathcal{L}
				85484	30			854	84	, –

											DQA:	Date	:: _	•	
NCR:	⁄es	/ No				WORK ORDER NON-	COI	NFORM	/IANCE / UPD/		QA Closed:	Date		. •	
		····								·			-		
Work Orde	er:					DISPOSITION				AGAINST DE	PARTMENT,	PARTMENT/PROCESS			
Part f	Part No. Scrap Use-as-is							Scrap Machining Small Fab				Water Jet d. Eng. Coor. re/Packaging		Engineering Quality Other	
NCR I	No.				 .	Work Order Update	ٳ		Large Fab	Composite		Supplier			
Root					Descri	ption of work order update		Initial	Actio	n	Sign &				
Cause		Date	Step	Qty		or Non-conformance	Cr	nief Eng	Descrip	tion	Date	Verification		QC Inspector	
Doc/Data															
Equip/Tooling											ļ				
Operator			1												
Material															
Setup															
Other															
Process												1			
Supplier													- 1		
Training							1						-		
Unapproved															
			<u>.</u>			F	AUI	LT CATE	GORY						
Landi	ng G	iear			_	General		,			-	_			
		Bending				Bend		Grain			Ovalized			Pressure/Forced	
		Centre No	ot Conce	ntric to	o/s	BOM/Route		Hardwa	re		Over/Under	tolerance		Temperature/Cure	
·		Cracks				Broken/Damaged		Inspecti	ion Incomplete	<u> </u>	Part Incorre	ct		Weld	
	Ш	Crushed/	Crimped.			Burrs		Instruct	ions Incomplete/Un	clear	Part Lost/M	issing		Wrong Stock Pulled	
	Cuffs Contamination						Mainte	nance		Part Moved					
	Heat Treat Countersink						Mislabe	led!		Positioned Wrong					
	Inspection Strip in Tube Cut Too Short						Misread	t		Power Loss,	'Surge		Other		

Offset

Out of Calibration
Out of Sequence

Outside Dimensions

Turning Sequence

Wave/Twist in Tube

Ripples in Bend

Torque Waves in Extrusion

Drill Holes

Drawing

Finish Folio

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

,	QTY -041	QTY -042	QTY -043	QTY -044	PART NUMBER	DESCRIPTION
	X	1			D2750-041	350 SKIDTUBE ASSEMBLY, LH
		X			D2750-042	350 SKIDTUBE ASSEMBLY, RH
			X		D2750-043	350 SKIDTUBE ASSEMBLY, LH
			Ì	X	D2750-044	350 SKIDTUBE ASSEMBLY, RH
	1	1	1	1	D2739	WEB
	8	- 8	8	8	D2743	SPACER
	1	1	1	1	D2744	CAP
	8	8	- 8	8	D2745	BUSHING
	1				D2750-1	SKIDTUBE WELDMENT, LH
		1			D2750-2	SKIDTUBE WELDMENT, RH
			1		D2750-3	SKIDTUBE WELDMENT, LH
				1	D2750-4	SKIDTUBE WELDMENT, RH
	1		1	l	D3488-041	BLADE FITTING, LH
		1		1	D3488-042	BLADE FITTING, RH
	4	4	4	4	D3490-1	SPACER
	4	4			D3490-3	SPACER
			4	4	D3490-5	SPACER
	8	8	8	8	D3492-041	PLUG ASSEMBLY
	8	8			D3492-043	PLUG ASSEMBLY
			8	8	D3492-045	PLUG ASSEMBLY
	1	1	1	1	D3535-25	WEARSHOE
	1	1	1	1	D3536-25	GASKET
Æ	3	3	3	3	D3537-1	WEARPAD
	8	8	8	8	D3631-1	WASHER
Γ	1	1	1	1	D3791-1	WEARPLATE
ļ	1	1	1	1	D3793-1	WEARSHOE
<u> </u>	1	1	1	1	D3793-3	WEARSHOE
Æ	1	1	1	1	D3794-1	GASKET
- 1	1	1	1	1	D3794-3	GASKET
_						
A	38	38	38	38	ALS4-1032-225	INSERT (OR ALS7-1032-225, AKS4-1032-225, AELS-1032-225)
L	34	34	34	34	AN3C5A	BOLT
	4	4	4	4	AN3C6A	BOLT
	4	4	4	4	AN6C44A	BOLT
	1	1	1	1	AN8C35A	BOLT
Δ	38	38	38	38	AN960C10L	WASHER
/F\	1	1	1	1	AN960C816L	WASHER
_	4	4.	4	4	MS21043-6	NUT
	1	1	1	1	MS21083C8	NUT
	4	4	4	4	NAS1515H3L	WASHER

MATERIAL: MAKE D2750-1/-2/-3/-4 FROM D2600-3 EXTRUSION (INITIAL LENGTH = 120.0).

FINISH:

ACID ETCH, ALONDE ASSEMBLY PER DART QSI 005 4.1 PRIOR TO INSTALLING D2739 WEB.

POWDER COAT WHITE (REF. 4.3.5.1) PER DART QSI 005 4.3

BLACK ANTI-SKID PAINT AS INDICATED TO 1.0 ABOVE SKIDTUBE CENTER-LINE PER DART 005 4.4 (OPTIONAL).

TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED

UNITS: INCHES UNLESS OTHERWISE NOTED

BREAK SHARP EDGES: N/A

IDENTIFICATION: N/A

Đ

GENERAL NOTES:

UNCON SUBJEC W NO_89386 MLJ

Si

DESIGN		RU	DART AEROSPACE USA, INC. PORT HADLOCK, WA					
REV.	L	-70	DESCRIPTION	BY	DATE			
A	NEW ISSU	E		DS [.]	98.04.16			
В	CHANGE M	AS24694-S2	93 TO AN8-16A	CP	98.09.01			
С	ADD D2750	0-3/D2750-4	: INCORPORATE D2738 AND D2740	CP	98.11.18			
D	ADD HOLE	S AND SPA RATE DEO S	CERS FOR APICAL FLOATS; 0133/9157	PH	06.01.05			
E	ADD RUBB REMOVE C NAS1515H	BER GASKE DTY (38) NA	SS STEEL WEARPLATES; TS; CHANGE INSERTS; ADD D3631-1; S1515H3L; REMOVE QTY (10) E D2741, QTY (2) AN960C816; 1083C8	СВ	07.05.17			
F	QTY (3) D3 D3791-1/-3 D3794-1/-3 ADD D379 WEARSHO (8 PL), WE. D3488-041 ADD NOTE	1-1 (ZN C8-1)E HOLES U ARSHOE H	OTY (5) (ZN C8-1); 5 D3535-13/35 (ZN C8-1); 5 D3536-13/35 (ZN B8-1); 1) NDER FWDIAFT SADDLE REMOVED ARDWARE UPDATED (ZN B8-1); WARE UPDATED (ZN C1-8, 9, 10, 11); (ZN A6-1);	РН	08.07.16			

CHECKED DRAWING NO. REV. F D2750 MFG. APPR. **SHEET 1 OF 11** APPROVED TITLE SCALE 350 SKIDTUBE ASSEMBLY DE APPR. NTS DATE

COPYRIGHT © 1998 BY DART AEROSPACE USA, INC.
THIS DOCUMENT IS PRIMATE AND CONFIDENTIAL AND IS BUPPLIED ON THE EXPRESS CONDITION
SOLT TO AC USED YOR ANY PURPOSE OF COMED OF COMMUNICATED TO ANY OTHER PERSON 08.07.16

WELD PER DART QSI 004

WELD PER DART QSI 004

INSTALL ALS4-1032-225 INSERTS AFTER FINISH AS INDICATED. DRILL 'F' SIZE HOLES (Ø 0.297) FOR WEARSHOE INSERTS

FINAL CONFIGURATION SHOULD HAVE THE FOLLOWING MINIMUM MECHANICAL PROPERTIES:

MINIMUM YIELD TENSILE STRENGTH = 38 KSI

MINIMUM ULTIMATE TENSILE STRENGTH = 38 KSI

SPRAY INSIDE OF TUBE WITH A COAT OF LPS LABORATORIES "LPS-3" AFTER FINISH AND AFTER INSTALLATION OF INSERTS.

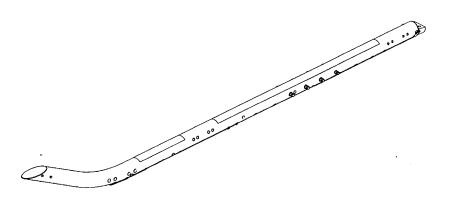
COAT ALL EXPOSED FASTENERS WITH LPS LABORATORIES "LPS-3" AFTER FINAL ASSEMBLY, CLEAN EXCESS OFF POWDER COATING WITH MEK DEGREASER.

SPACER AND PLUG INSTALLED SAME AS SECTION AJ-AJ EXCEPT HORIZONTAL

SPACER AND PLUG INSTALLED SAME AS SECTION AP-AP EXCEPT HORIZONTAL

IDENTIFICATION: N/A WEIGHT: D2750-041/-042/-043/-044 = 26.5 LBS

29386



or so con the second of the se

D2750-041 350 SKIDTUBE ASSEMBLY, LH

D2750-042 350 SKIDTUBE ASSEMBLY, RH



DESIGN	DM	DADT AEDOCDACE HCA H	10
DRAWN	A	DART AEROSPACE USA, II PORT HADLOCK, WA	VC.
CHECKED	A.	DRAWING NO.	REV. F
MFG. APPR.	M	D2750 _{SHE}	ET 2 OF 11
APPROVED	M	TITLE	SCALE
DE APPR.	-	350 SKIDTUBE ASSEMBLY	NTS
DATE 08.0	7.16	COPYRIGHT © 1998 BY DART AEROSPACE USA, THIS DOCUMENT IS PRIVATE AND COMPENTIAL AND IS SUPPLED ON THE EXPRESS COM NOT TO BE USED FOR ANY PURPOSE OR COPIED OF COMPLINEATED TO ANY OTHER PER	OTTON THAT IT IS

29386 D2750-043 350 SKIDTUBE ASSEMBLY, LH D2750-044 350 SKIDTUBE ASSEMBLY, RH DESIGN DRAWN DART AEROSPACE USA, INC. PORT HADLOCK, WA DRAWING NO. D2750 CHECKED REV. F MFG. APPR. SHEET 3 OF 11 TITLE APPROVED SCALE DE APPR. NTS

350 SKIDTUBE ASSEMBLY

COPYRIGHT 6 1998 BY DART AEROSPACE USA, INC.

THIS DOCUMENT 6 PRIVATE AND COMMENTAL MAD IS SEPTED ON THE COMMENT OF COMMENTAL AND SEPTED ON THE COMMENT OF COMMENTAL AND SEPTED ON THE COMMENT OF COM DATE 08.07.16

